Bold and single underline = new language since preliminary adoption

TITLE 326 AIR POLLUTION CONTROL BOARD

PROPOSED RULE AS PRELIMINARY ADOPTED WITH IDEM'S SUGGESTED CHANGES INCORPORATED

LSA Document #02-55

DIGEST

Amends 326 IAC 20-25 concerning emissions from reinforced plastics composites fabricating emission units. Adds 326 IAC 20-48 concerning national emission standards for hazardous air pollutants from boat manufacturing. Effective 30 days after filing with the secretary of state.

HISTORY

First Notice of Comment Period: March 1, 2000, Indiana Register (25 IR 2045).
Second Notice of Comment Period and Notice of First Hearing: July 1, 2002, Indiana Register (25 IR 3488).
Date of First Hearing: September 4, 2002.
Notice of Second Hearing: October 1,2002, Indiana Register (26 IR 97).
Scheduled Date of Second Hearing: November 6, 2002.

326 IAC 20-25-1
326 IAC 20-25-3
326 IAC 20-25-4
326 IAC 20-25-5
326 IAC 20-25-7
326 IAC 20-48

SECTION 1. 326 IAC 20-25-1 IS AMENDED TO READ AS FOLLOWS:

326 IAC 20-25-1 Applicability

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-17-3

Sec. 1. (a) This rule applies to owners or operators of sources that emit or have the potential to emit ten (10) tons per year of any hazardous air pollutant (HAP) or twenty-five (25) tons per year of any combination of HAPs, and that meet all of the following criteria:

(1) Manufacture reinforced plastics composites parts, products, or watercraft.
(2) Have an emission unit where resins and gel coats that contain styrene are applied and cured using the open molding process.
(3) Have actual emissions of styrene equal to or greater than three (3) tons per year.

(b) Except as provided in section ~~3(c)~~ **3(d)** of this rule, in the event there is a conflict between this rule and any existing federal or state statute or federal or state rule, the more stringent requirement shall apply.

(c) If a source is subject to 326 IAC 20-48 concerning emission standards for hazardous air

pollutants for boat manufacturing, the source is exempt from this rule after the following compliance dates for 326 IAC 20-48:

(1) August 23, 2004, for an existing source that is a major source on or before August 22, 2001.

(2) One (1) year after becoming a major source for an existing or new nonmajor source.

(3) Upon startup for a new major source. *(Air Pollution Control Board; 326 IAC 20-25-1; filed Feb5, 2001, 9:23 a.m.; 24 IR 2406)*

SECTION 2. 326 IAC 20-25-3 IS AMENDED TO READ AS FOLLOWS:

326 IAC 20-25-3 Emission standards

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-17-3

Sec. 3. (a) Except as provided in subsections ~~(e)~~, ~~(f)~~, **(d), (e)**, and ~~(h)~~ **(g)**, owners and operators of sources subject to this rule shall comply with the provisions of this section on or before January 1, 2002. The total hazardous air pollutants (HAP) monomer content of the following materials shall be limited depending on the application method and products produced as specified in the following tables:

TABLE I Fiber Reinforced Plastics Composites Products Except Watercraft	HAP Monomer Content, Weight Percent
Resin, Manual or Mechanical Application	
Production-Specialty Products	48*
Production-Noncorrosion Resistant Unfilled	35*
Production-Noncorrosion Resistant Filled ($35% by weight)	38
Production, Noncorrosion Resistant, Applied to Thermoformed Thermoplastic Sheet	42
Production, Class I, Flame and Smoke	60*
Shrinkage Controlled	52
Tooling	43
Gel Coat Application	
Production-Pigmented	37
Clear Production	44
Tooling	45
Production-Pigmented, subject to ANSI[a] standards	45
Production-Clear, subject to ANSI[a] standards	50

[a] American National Standards Institute.

TABLE II Watercraft Products	HAP Monomer Content, Weight Percent

Resin, Manual or Mechanical Application	
Production-Specialty Products	48*
Production-Noncorrosion Resistant Unfilled	35*
Production-Noncorrosion Resistant Filled ($35% by weight)	38
Shrinkage Controlled	52
Tooling	43*
Gel Coat Application	
Production-Pigmented and Base Coat Gel Coat	34
Clear Production and Tooling	48

*Categories that must use mechanical nonatomized application technology or manual application as stated in subsection (b).

(b) Except as provided in subsection ~~(f)~~ **(e)**, the following categories of materials in subsection (a) shall be applied using mechanical nonatomized application technology or manual application:

(1) Production noncorrosion resistant, unfilled resins from all sources.

(2) Production, specialty product resins from all sources.

(3) Tooling resins used in the manufacture of watercraft.

(4) Production resin used for Class I flame and smoke products.

(c) Unless specified in subsection (b), gel coat application and mechanical application of resins shall be by any of the following spray technologies:

(1) Nonatomized application technology.

(2) Air-assisted airless.

(3) Airless.

(4) High volume, low pressure.

(5) Equivalent emission reduction technologies to subdivisions (2) through (4).

~~(d) Cleaning operations for resin and gel coat application equipment are as follows:~~

~~(1) For routine flushing of resin and gel coat application equipment such as spray guns, flowcoaters, brushes, rollers, and squeegees, a cleaning solvent shall contain no HAPs. This emission standard does not apply to solvents used for removing cured resin or gel coat from application equipment.~~

~~(2) A source must store HAP-containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.~~

~~(3) Recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subsection.~~

~~(e)~~ **(d)** A source that was issued a permit pursuant to 326 IAC 2 on or after June 28, 1998, but prior to the effective date of this rule, and that obtained a revised best available control technology (BACT) determination in the permit for emission units, is not subject to this section until the permit is renewed, or the emission unit undergoes a modification that increases the potential to emit styrene.

~~(f)~~ **(e)** A new or reconstructed emission unit subject to 326 IAC 2-4.1-1 is not subject to the

requirements of this section.

~~(g)~~ **(f)** The owner or operator of a source subject to this rule may comply with this section using monthly emission averaging within each resin or gel coat application category listed in subsection (a) without prior approval by the commissioner.

~~(h)~~ **(g)** Upon written application by the source, the commissioner may approve the following:
(1) Enforceable alternative emission reduction techniques that are at least equally protective of the environment as the emission standards in subsections (a) through ~~(d).~~ **(c).**
(2) Use of monthly emissions averaging for any or all material or application categories listed in subsection (a) if the following conditions are met:

(A) The source shows that emissions did not exceed the emissions that would have occurred if each emission unit had met the requirements of subsections (a) through (c).

(B) The source uses any one (1) or a combination of the following emission reduction techniques:

(i) Resins or gel coats with HAP monomer contents lower than specified in subsection (a).

(ii) Vapor suppressed resins.

(iii) Vacuum bagging or other similar technique. This item does not include resin transfer molding or compression molding.

(iv) Air pollution control equipment where the emissions are estimated based on parametric measurements or stack monitoring.

(v) Controlled spray used in combination with automated actuators or robots.

(vi) Controlled spray that includes the following:

(AA) Mold flanges.

(BB) Spray technique.

(CC) Spray gun pressure.

(DD) Means of verifying continuous use of the controlled spray technique, such as mass balance of materials and products (surface area and thickness of product), as approved by the commissioner prior to implementation.

(vii) Emission reduction techniques approved under subdivision (1).

Sources using averaging shall not use spray equipment that produces higher emissions than the equipment specified in subsection (c)(2) through (c)(5).

~~(i)~~ **(h)** To determine emission estimates, the following references or methods shall be used:
(1) "Unified Emission Factors for Open Molding of Composites", ~~April 1999,~~ **July 2001**,** except use of controlled spray emission factors must be approved by the commissioner.
(2) "Compilation of **Air Pollution** Emission Factors **AP-42**"**, ~~Volume 1, Fifth Edition, and supplements, January 1995*~~, **as defined in 326 IAC 1-2-20.5,** except ~~for~~ **emissions from** hand layup and spray layup operations **must be calculate**d using emission factors **referenced in subdivision (1) or site-specific values using information in subdivision (3).**
(3) Site-specific values or other means of quantification provided the site-specific values and the emission factors are acceptable to the commissioner and the U. S. EPA.

****These documents are incorporated by reference.** Copies ~~of the "Compilation of Emission~~

~~Factors" and "Unified Emission Factors for Open Molding of Composites" referenced in this article~~ **may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington D.C., 20204 or** are available for **review and** copying ~~from~~ **at** the **Indiana Department of Environmental Management**, Office of Air ~~Management~~ **Quality**, ~~Department of Environmental Management,~~ Indiana Government Center-North, **Tenth Floor,** 100 North Senate Avenue, Indianapolis, Indiana. *(Air Pollution Control Board; 326 IAC 20-25-3; filed Feb 5, 2001, 9:23 a.m.: 24 IR 2408)*

SECTION 3. 326 IAC 20-25-4 IS AMENDED TO READ AS FOLLOWS

326 IAC 20-25-4 Work practice standards

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-17-3

Sec. 4. On or before March 1, 2001, each owner or operator of a source or emission unit subject to this rule shall operate in accordance with the following work practice standards:

(1) Nonatomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

(2) Except for mixing containers as described in subdivision (7), hazardous air pollutants (HAP) containing materials shall be kept in a closed container when not in use.

(3) Solvents sprayed during cleanup and resin changes shall be directed into solvent collection containers.

(4) Solvent collection containers shall be kept closed when not in use.

(5) Clean-up rags with solvent shall be stored in closed containers.

(6) Closed containers shall be used for the storage of the following:

(A) All production and tooling resins that contain HAPs.

(B) All production and tooling gel coats that contain HAPs.

(C) Waste resins and gel coats that contain HAPs.

(D) Cleaning materials, including waste cleaning materials.

(E) Other materials that contain HAPs.

The covers of the closed containers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(7) All resin and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

(8) For routine flushing of resin and gel coat application equipment, such as spray guns, flowcoaters, brushes, rollers, and squeegees, owners or operators must use a cleaning solvent that contains no HAPs. However, recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subdivision. For removing cured resin or gel coat from application equipment, no organic HAP limit applies. *(Air Pollution Control Board; 326 IAC 20-25-4; filed Feb 5, 2001, 9:23 a.m.: 24 IR 2410)*

SECTION 4. 326 IAC 20-25-5 IS AMENDED TO READ AS FOLLOWS:

326 IAC 20-25-5 Testing requirements

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-17-3

Sec. 5. (a) An initial performance test is required when using air pollution control equipment to demonstrate compliance with the standards in section 3 of this rule. Testing shall be performed in accordance with 326 IAC 3-6, concerning source sampling procedures, and 40 CFR 63.7*, ~~(July 1, 1998)*,~~ performance testing requirements.

(b) When using air pollution control equipment to demonstrate compliance with the standards in section 3 of this rule, the following test methods shall be used:

(1) 40 CFR 60, Method 25/25A, Appendix A*, ~~(July 1, 1998)*,~~ shall be used to measure total hydrocarbon emissions.

(2) 40 CFR 60, Method 18, Appendix A*, ~~(July 1, 1998)*,~~ shall be used to measure styrene and methyl methacrylate emissions.

(3) 40 CFR 51, Method 204, Appendix M*, ~~(July 1, 1998)*,~~ shall be used to determine capture efficiency. As an alternative to the procedures specified in 40 CFR 51, Method 204, Appendix M*, ~~(July 1, 1998)*,~~ an owner or operator required to conduct a capture efficiency test may use any capture efficiency protocol and test methods that satisfy the criteria of either the data quality objective or the lower confidence limit approach as described in the EPA Guidelines for Determining Capture Efficiency, which is included in Appendix A to Subpart KK to 40 CFR Part 63*. ~~(July 1, 1998)*.~~ The owner or operator may exclude work stations that have never been subject to such capture efficiency determinations.

(c) Compliance with the HAP monomer content and usage limitations shall be determined using one (1) of the following:

(1) The manufacturer's certified product data sheet.

(2) The manufacturer's material safety data sheet.

(3) Sampling and analysis, using any of the following test methods, as applicable:

(A) 40 CFR 60, Method 24, Appendix A*, ~~(July 1, 1998)*,~~ shall be used to measure the total volatile HAP content of resins and gel coats. Method 24 may be modified for measuring the volatile HAP content of resins or gel coats to require that the procedure be performed on uncatalyzed resin or gel coat samples.

(B) 40 CFR 63, Method 311, Appendix A*, ~~(July 1, 1998)*,~~ shall be used to measure HAP content in resins and gel coats by direct injection into a gas chromatograph.

(C) Upon written application by the source, the commissioner may approve an alternative test method.

When a MSDS, a certified product data sheet, or other document specifies a range of values, the values resulting in the greatest calculated emissions shall be used for determining compliance with this rule.

***These documents are incorporated by reference.** Copies ~~of the Code of Federal Regulation (CFR) referenced in this section~~ may be obtained from the Government Printing Office, **732 North Capitol Street NW,** Washington, D. C. 20204 or are available for **review and** copying ~~from~~ **at** the **Indiana Department of Environmental Management**, Office of Air ~~Management~~ **Quality**, ~~Department of Environmental Management~~, Indiana Government Center-North, **Tenth Floor**, 100

North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Board; 326 IAC 20-25-5; filed Feb 5, 2001, 9:23 a.m.: 24 IR 2410)*

SECTION 5. 326 IAC 20-25-7 IS AMENDED TO READ AS FOLLOWS:

326 IAC 20-25-7 Reporting requirements

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-17-3

Sec. 7. (a) On or before June 1, 2001, the owner or operator of a source subject to this rule shall submit an initial notification report to the commissioner. The notification report shall include all of the following:

(1) Name and address of the owner or operator.

(2) Address of the physical location of the source.

(3) Statement verifying that the source is subject to the rule signed by a responsible official as set forth in 326 IAC 2-7-1(34).

(b) On or before March 1, 2002, the owner or operator of a source subject to this rule shall submit an initial statement of compliance to the commissioner. The initial statement of compliance shall include all of the following:

(1) Name and address of the owner or operator.

(2) Address of the physical location.

(3) Statement signed by a responsible official, as set forth in 326 IAC 2-7-1(34), certifying that the source achieved compliance on or before January 1, 2002, the method used to achieve compliance, and that the source is in compliance with all the requirements of this rule.

(c) Sources using monthly emissions averaging pursuant to section ~~3(h)(2)~~ **3(g)(2)** of this rule, shall submit a quarterly summary report and supporting calculations. *(Air Pollution Control Board; 326 IAC 20-25-7; FILED Feb 5, 2001, 9:23 a.m.: 24IR 2411)*

SECTION 6. 326 IAC 20-48 IS ADDED TO READ AS FOLLOWS:

Rule 48. Emission Standards for Hazardous Air Pollutants for Boat Manufacturing.

326 IAC 20-48-1 Applicability; incorporation by reference of federal standards

Authority: IC 13-15-2-1; IC 13-17-3-4
Affected: IC 13-12-3-1

Sec. 1. (a) This rule applies to sources as provided in 40 CFR 63.5683* (66 FR 44232, August 22, 2001, and 66 FR 50504, October 3, 2001).

(b) The air pollution control board incorporates by reference 40 CFR 63, Subpart VVVV*, (66 FR 44232, August 22, 2001, and 66 FR 50504, October 3, 2001), National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing, except for the following gel coat applications in Table 2 to Subpart VVVV, 40 CFR 63*; Alternative Organic Hazardous Content Requirements for Open Molding Resin and Gel Coat Operations:

(1) 3. Pigmented gel coat operations.
(2) 4. Clear gel coat operations.
(3) 7. Tooling gel coat operations.

(c) Sources subject to this rule are exempt from 326 IAC 20-25 after the following compliance dates as provided in Table 1 to Subpart VVVV, 40 CFR 63*; Compliance Dates for New and Existing Boat Manufacturing Facilities:
(1) August 23, 2004, for an existing source that is a major source on or before August 22, 2001.
(2) One (1) year after becoming a major source for an existing or new nonmajor source.
(3) Upon startup, whichever is later, for a new major source.

(d) A source shall use the following references or methods to estimate emissions:
(1) "Unified Emission Factors for Open Molding of Composites", July 2001*, except use of controlled spray emission factors must be approved by the commissioner and U.S. EPA.
(2) "Compilation of Air Pollution Emission Factors AP-42"*, as defined in 326 IAC 1-2-20.5, except emissions from hand layup and spray layup operations must be calculated using emission factors referenced in subdivision (1) or site-specific values using information in subdivision (3).
(3) Site-specific values or other means of quantification provided the site-specific values and the emission factors are acceptable to the commissioner and the U. S. EPA.

***These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.** *(Air Pollution Control Board; 326 IAC 20-48-1)*

326 IAC 20-48-2 Alternative organic hazardous air pollutant content requirements for open molding gel coat operations
Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-17-3

Sec. 2. In addition to alternative organic HAP content requirements for open molding resin operations contained in Table 2 to Subpart VVVV, 40 CFR 63*, the alternative HAP content requirements for gel coat operations are as follows:

Gel Coat Application

For this operation	And this application method	You must not exceed this weighted-average percent organic HAP content (weight percent) requirement
Pigmented gel coat operations	Atomized (spray)	33 percent

Clear gel coat operations	**Atomized (spray)**	**48 percent**
Tooling gel coat operations	**Atomized (spray)**	**40 percent**
Pigmented gel coat operations	**Nonatomized (nonspray)**	**40 percent**
Clear gel coat operations	**Nonatomized (nonspray)**	**55 percent**
Tooling gel coat operations	**Nonatomized (nonspray)**	**54 percent**

***These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.** *(Air Pollution Control Board; 326 IAC 20-48-2)*

326 IAC 20-48-3 Work practice standards

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-17-3

Sec. 3. In addition to 40 CFR 63.5731* and 40 CFR 63.5734(b)*, the following work practice standards are required:

(1) Nonatomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

(2) Solvents sprayed during cleanup and resin changes shall be directed into solvent collection containers.

(3) For routine flushing of resin and gel coat application equipment, such as spray guns, flowcoaters, brushes, rollers, and squeegees, owners or operators must use a cleaning solvent that contains no hazardous air pollutants (HAPs). However, recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subdivision. For removing cured resin or gel coat from application equipment, no organic HAP limit applies.

(4) Clean-up rags with solvent shall be stored in closed containers.

(5) Closed containers shall be used for the storage of the following:

(A) All production and tooling resins that contain HAPs.
(B) All production and tooling gel coats that contain HAPs.
(C) Waste resins and gel coats that contain HAPs.
(D) Cleaning materials, including waste cleaning materials.
(E) Other materials that contain HAPs.

The covers of the closed containers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

***These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management,**

Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Board; 326 IAC 20-48-3)*

326 IAC 20-48-4 Operator training

Authority: IC 13-14-8; IC 13-15-2-1; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-17-3

Sec. 4. (a) Each owner or operator shall train all new and existing personnel, including contract personnel, who are involved in resin and gel coat spraying and applications that could result in excess emissions if performed improperly according to the following schedule:

(1) All personnel hired shall be trained within fifteen (15) days of hiring.

(2) To ensure training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.

(3) Personnel who have been trained by another owner or operator subject to this rule are exempt from subdivision (1) if written documentation that the employee's training is current is provided to the new employer.

(b) The lesson plans shall cover, for the initial and refresher training, at a minimum, all of the following topics:

(1) Appropriate application techniques.

(2) Appropriate equipment cleaning procedures.

(3) Appropriate equipment setup and adjustment to minimize material usage and overspray.

(c) The owner or operator shall maintain the following training records on site and available for inspection and review:

(1) A copy of the current training program.

(2) A list of all current personnel, by name, that are required to be trained and the dates they were trained and the date of the most recent refresher training.

(d) Records of prior training programs and former personnel are not required to be maintained. *(Air Pollution Control Board; 326 IAC 20-48-4)*